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10/699,940	11/03/2003	Thomas Scott III	MS1-1731US	4357
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EXAMINER				
SAINT CYR, JEAN D				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/699,940

Applicant(s)

SCOTT ET AL.

Examiner

JEAN D. SAINT CYR

Art Unit

2425

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-39 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-39 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/CDC)
- Paper No(s)/Mail Date ____.

- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date ____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

The USPTO "Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility" (Official Gazette notice of 22 November 2005), Annex IV, reads as follows:

Descriptive material can be characterized as either "functional descriptive material" or "nonfunctional descriptive material." In this context, "functional descriptive material" consists of data structures and computer programs which impart functionality when employed as a computer component. (The definition of "data structure" is "a physical or logical relationship among data elements, designed to support specific data manipulation functions." The New IEEE Standard Dictionary of Electrical and Electronics Terms 308 (5th ed. 1993).) "Nonfunctional descriptive material" includes but is not limited to music, literary works and a compilation or mere arrangement of data.

When functional descriptive material is recorded on some computer-readable medium it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized. Compare *In re Lowry*, 32 F.3d 1579, 1583-84, 32 USPQ2d 1031, 1035 (Fed. Cir. 1994) (claim to data structure stored on a computer readable medium that increases computer efficiency held statutory) and *Warmerdam*, 33 F.3d at 1360-61, 31 USPQ2d at 1759 (claim to computer having a specific data structure stored in memory held statutory product-by-process claim) with *Warmerdam*, 33 F.3d at 1361, 31 USPQ2d at 1760 (claim to a data structure per se held nonstatutory).

In contrast, a claimed computer-readable medium encoded with a computer program is a computer element which defines structural and functional interrelationships between the computer program and the rest of the computer which permit the computer program's functionality to be realized, and is thus statutory. See *Lowry*, 32 F.3d at 1583-84, 32 USPQ2d at 1035.

Claim(s) 36-37 are rejected under 35 U. S. C. 101 because the claimed invention is directed to non-statutory subject matter as follows. Claims 36-37 are drawn to a "database schema" comprising instructions. However, the claims do not define a computer readable medium or memory and is thus non-statutory for that reason (i.e., "When functional descriptive material is recorded on some computer-readable medium it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized" - Guidelines Annex

Response to Amendment

This action is on response to applicant's amendment filed on 06/25/2008. Claims 1-39 are still pending in the current application. This action is made **NON-FINAL**.

Response to Arguments

Applicant's arguments were fully considered and some of them were persuasive. The examiner uses new references. As a result, this action is made non-final.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-5, 9-20, 22-24, 26-38 are rejected under 35 U.S.C. 102(b) as being anticipated by Kikinis et al, US Patent No. 7213256.

Re claim 1, Kikinis et al disclose providing a set of viewer selectable attributes, the set of attributes comprising attributes which are each descriptive of a different aspect of a television program, wherein each attribute of the set corresponds to a combinable navigation context to generate a navigable sequence of television programs (see fig.3b where a list of attributes is presented to the user);

selecting attributes from the set (see fig.3b; marked selection of the Cheers 301 show);

logically combining the navigation contexts which correspond to the selected attributes(see fig.3b, upon selection by the viewer, the expanded search function 305 first moves or pastes into the EPG search display 310 the marked/selected show name Cheers 301 and its associated features, such as the name or show title 302, directors 303, actors 304, etc, paragraph 11);

querying a database of television programming metadata for television program identifiers associated with the combined navigation contexts(see fig.4, program data database; database search, where the probability of a match is determined according to the rules established by the search elements and parameters, paragraph 17) ; and

presenting a sequence of television programs associated with the identifiers for

navigation (see fig.3c; the results of the expanded search function 305 are illustrated in EPG display 320 in FIG. 3c, paragraph 14).

Re claim 2, Kikinis et al explicitly disclose wherein the querying is performed by one or more predefined queries and each predefined query is associated with a combinable navigation context (see fig.3b with option to combine to combine predefined queries)

Re claim 3, Kikinis et al disclose wherein the set of attributes includes an actor attribute and a director attribute, and wherein logically combining the navigation contexts which correspond to the selected attributes comprises logically combining navigation contexts which correspond to the actor attribute and the director attribute to generate a single navigational axis(see fig.3b; such as the name or show title 302, directors 303, actors 304, etc., as drawn from the descriptive part of the EPG program data, paragraph 11).

Re claim 4, Kikinis et al disclose wherein links for launching the one or more predefined queries are associated with television program content (see fig.3b).

Re claim 5, Kikinis et al disclose wherein the television program content is included in a conventional broadcast television show (see fig.3c).

Re claim 8, Kikinis et al disclose wherein a link is selectable while the television program content is playing(if a Steve Martin festival is playing, a viewer could search for other shows in which Steve Martin appears instead of only the specific show that forms the basis of the search reference, paragraph 15).

Re claim 9, Kikinis et al disclose wherein links for launching the one or more

predefined queries are associated with television program metadata (see fig.3b, director, actor, genre).

Re claim 10, Kikinis et al disclose wherein a link is selectable while the television program metadata is displayed (see fig.3b where actor is selected).

Re claim 11, Kikinis et al discloses wherein navigation controls perform the navigating (the discrete value may be specified using a keypad on a remote control device or some other conventional mechanism for specifying a value, Paragraph 19).

Re claim 12, Kikinis et al disclose wherein the navigation controls select one or more of the combinable navigation contexts (see fig.3b).

Re claim 13, Kikinis et al disclose further comprising using at least one of the combinable navigation contexts as a logical filter (see fig.3b where parameter actor is selected to force the processor to look for cheers and actor associated with only).

Re claim 14, Kikinis et al disclose further comprising logically combining with Boolean operators (the search elements and parameters may be combined for a complex search that may be further adjusted by a slider or other or other graphical visual icon or input device which permits the viewer to give additional weight to certain parameters, paragraph 19; by combining element and parameter, Boolean operator was used, paragraph 19).

Re claim 15, Kikinis et al disclose wherein the Boolean operators are applied automatically based on an association between a link for launching a predefined query corresponding to a navigation context and the television program content associated with the link (see fig.3c).

Re claim 16, Kikinis et al disclose wherein the Boolean operators are applied

automatically based on an association between a link for launching a predefined query corresponding to a navigation context and the television program metadata associated with the link(see fig.3c where date and actor can be combined automatically).

Re claim 17, Kikinis et al disclose further comprising navigating the sequence, wherein the navigating comprises using a navigation control to change from playing a currently playing program in the sequence to playing another program in the sequence (control the selection of programs from the video input 430 for display on the video output 450, paragraph 23; that means using the remote control allows users to switch between programs).

Re claim 18, Kikinis et al disclose defining a query for television programming metadata, wherein the when the query is launched, the query uses one or more attribute values from a television program context from which the query was launched to produce a list of television program identifiers associated with the one or more attribute values(see fig.3c), wherein the one or more attribute values are selected by a viewer from among a set of attribute values which are each descriptive of a different aspects of a television program(see fig.3b);

arranging the television programming metadata (Like the search elements, the additional search parameters may also be derived from the descriptive part of the EPG program data, paragraph 12) into a data structure wherein attribute values are associated with program identifiers (see fig.3b); and

providing a user interface (see fig.3b where user can select), wherein a navigation control selects whether to launch the query and if launched, designates one or more attribute values from the television program context (upon selection by the viewer, the expanded search function 305 first moves or pastes into the EPG search display 310 the marked/selected show name Cheers 301 and its associated features, such as the name or show title 302, directors 303, actors 304, paragraph 11).

Re claim 19, Kikinis et al disclose wherein the television program context is a television program currently being displayed (if a Steve Martin festival is playing, a viewer could search for other shows in which Steve Martin appears instead of only the specific show that forms the basis of the search reference, Paragraph 15).

Re claim 20, Kikinis et al disclose wherein the television program context is program guide information associated with a television program (the additional search parameters may also be derived from the descriptive part of the EPG program data, paragraph 12).

Re claim 22, Kikinis et al disclose further comprising when the query is launched, then using the navigation control to access television programs associated with television program identifiers on the list (see fig.3c where user can use the remote control to select program).

Re claim 23, Kikinis et al disclose further comprising playing each television program in response to the navigation control accessing the television program (the viewer can then select from the results which of the shows to watch, paragraph 14).

Re claim 24, Kikinis et al disclose further comprising displaying program information for each television in response to the navigation control accessing the television program (the viewer can then select from the results which of the shows to watch, paragraph 14).

Re claim 26, Kikinis et al disclose further comprising defining multiple queries for television programming metadata, wherein multiple queries are capable of being logically combined (see fig.3b).

Re claim 27, Kikinis et al disclose wherein the multiple queries are logically combined through Boolean logic operators (see fig.3b where Cheers and actor are selected for the same search).

Re claim 28, Kikinis et al disclose wherein the Boolean operators are designated by the television program context (see fig.3b, director, actor).

Re claim 29, Kikinis et al disclose a server for storing and accessing digital television programming content (see fig.4, database);

a navigation control for changing a currently playing television program to a television program provided by the server and for selecting links to launch predefined queries(see fig.4, user interface), wherein each predefined query queries a database based on television program attributes selected by a viewer(see fig.3b, user uses remote control to select parameter) and returns a navigation axis comprising a list of program identifiers of programs corresponding to a value for the television program attributes selected(see fig.3c);

a means for storing television program metadata in a database(The EPG program data on the program data database 420 is comprised of show names or titles, and other descriptive information such as the actors, director, or genre, paragraph 22),

a means for arranging the program metadata in a relational schema(The processor 410 in the described embodiment acts under program control by a program stored in program logic memory 440 to perform the previously described expanded search functions 305, paragraph 21),

a means for defining and storing the pre-defined queries (memory 440 to perform the previously described expanded search functions 305, paragraph 21); and

a means for embedding links to the pre-defined queries in logically associated metadata for a currently playing television program (the additional search parameters may also be derived from the descriptive part of the EPG program data, paragraph 12).

Re claim 30, Kikinis et al disclose further comprising a means logically combining multiple predefined queries (see fig.3b).

Re claim 31, Kikinis et al disclose further comprising a means for selecting more than one link in order to logically combine multiple predefined queries (see fig.3b).

Re claim 32, Kikinis et al disclose wherein the relational schema adheres at least in part to a global listings format.

Re claim 33, Kikinis et al disclose a database for television program metadata (The EPG program data on the program data database 420 is comprised of show names or titles, and other descriptive information such as the actors, director, or genre, paragraph 22);

a query engine to find identifiers in the database corresponding to predefined queries (see fig.4; processor), wherein a predefined query returns a navigational axis from the database, wherein a navigational axis is a list of identifiers of television programs (see fig.3c);

a user interface to associate launch of one or more of the predefined queries with selection of one or more attributes descriptive of a currently playing television program or currently displayed metadata of the television program, and to receive the one or more attributes which are selected by a viewer (see fig.3b);

an axis cache to store the list of identifiers returned by one or more predefined

queries(The EPG program data on the program data database 420 is comprised of show names or titles, and other descriptive information such as the actors, director, or genre, paragraph 22); and

a navigation controller associated with the user interface to select the attributes launching the predefined queries and to play television programs corresponding to the identifiers on the list (The viewer can then select from the results which of the shows to watch, paragraph 14).

Re claim 34, Kikinis et al disclose further comprising a combiner to combine selected attributes for launching multiple predefined queries (the search elements and parameters may be combined for a complex search that may be further adjusted by a slider or other or other graphical visual icon or input device which permits the viewer to give additional weight to certain parameters, such as the actor's name versus the director's, paragraph 19).

Re claim 35, Kikinis et al disclose wherein the navigation controller is on a remote controller (a viewer action on a remote control device, paragraph 10).

Re claim 36, Kikinis et al disclose instructions for arranging a database of television programming metadata into indices facilitating predefined queries(The processor 410 in the described embodiment acts under program control by a program stored in program logic memory 440 to perform the previously described expanded search functions 305, paragraph 21);

wherein one or more links contextually associated with attributes of a television program call the predefined queries, wherein the attributes have been selected by a viewer from among a set of attributes, and wherein each attribute of the set corresponds to a combinable navigation context which can be used for generating a navigable

sequence of television programs (see fig.3b where there are director, actor, genre and user can select parameters with the remote control),

wherein the predefined queries return a list of identifiers from the database corresponding with one or more of the attributes (see fig.3c),

wherein the identifiers correspond to television programs (see fig.3b, fig.3c),

wherein the television programs on the list are played in turn as accessed by a television channel navigation means (The viewer can then select from the results which of the shows to watch, paragraph 14).

Re claim 37, Kikinis et al disclose wherein the one or more attributes include one of: type of program, program title, alphabetical order of title, year of release, channel, time, first air date, episode order, episode name, genre, actors, writer, director, producer, rating, sound characteristics, video characteristics, language, subtitles, closeness of match to search criteria, and popularity (The EPG program data on the program data database 420 is comprised of show names or titles, and other descriptive information such as the actors, director, or genre, paragraph 22).

Re claim 38, Kikinis et al disclose defining television navigation axes according to attributes of television programs (see fig.3b that contains axes name, director, actor, genre);

receiving a viewer selection of attributes from among a set of attributes (see fig.3b), wherein each attribute selected is descriptive of a different aspect of a currently playing television program (see fig.3b, actor, director, genre);

linking a predefined database query for one of the axes to a television program having the attributes that defines the axis (see fig.3b, director, actor, genre, time),

providing a database of television program identifiers associated with the attributes (see fig.4);

providing a means for selecting and launching the predefined database query (see fig.3b), wherein the query returns a list of program identifiers of television programs having the attribute that defines the axis (see fig.3c).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 6-7, 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kikinis et al in view of Ellis et al, US No. 20040117831.

Re claim 6, Kikinis et al did not disclose wherein the television program content is included in one of an on-demand television show or an on-demand television movie.

However, Ellis et al disclose wherein the television program content is included in one of an on-demand television show or an on-demand television movie (see fig.9, movie) on demand.

It would have been obvious for any person of ordinary skill in the art at that time the invention was made to introduce on demand into the system of Kikinis, as taught by Ellis for the purpose of allowing user to view on demand content.

Re claim 7, Kikinis et al did not disclose wherein the television program content is included in television musical programming.

However, Ellis et al disclose wherein the television program content is included in television musical programming (see fig.54, music on demand).

It would have been obvious for any person of ordinary skill in the art at that time the invention was made to introduce musical programming into the system of Kikinis, as taught by Ellis for the purpose of allowing user to get access to music data.

Re claim 21, Kikinis et al did not disclose wherein the television program context is an order form for ordering an on-demand television program.

However, Ellis et al disclose wherein the television program context is an order form for ordering an on-demand television program (see fig.9, a form for ordering different kind of video on demand).

It would have been obvious for any person of ordinary skill in the art at that time the invention was made to introduce on demand into the system of Kikinis, as taught by Ellis for the purpose of allowing user to view on demand content.

Claims 25, 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kikinis et al in view of O'Connor et al, US No. 20030165324.

Re claim 25, Kikinis et al did not disclose further comprising:

pausing a first television program at a pause point in response to the navigation control accessing a second television program on the list; and

resuming the first television program at the pause point in response to the navigation control accessing the first television program.

However, O'Connor() et al disclose When the user wishes to resume to the prior program, as indicated at diamond 2712, the restoration, implemented at block 2714, uses the stored switch time to identify a return point in the prior program. In this way, the user can watch one program in the same channel, switch to another program, return to the original program and, using the catch-up feature, may catch back up to real time, by knowing where the viewer left the prior program, paragraph 0123.

It would have been obvious for any person of ordinary skill in the art at that time the invention was made to introduce pausing television program and resuming television program into the system of Kikinis, as taught by O'Connor, for the purpose of allowing users to switch from one channel to another one without missing any part of the program.

Re claim 39, is met as previously discussed with respect to claim 25.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jean Duclos Saintcyr whose phone number is 571-270-3224. The examiner can normally reach on M-F 7:30-5:00 PM EST. If attempts to reach the examiner by telephone are not successful, his supervisor, Brian Pendleton, can be reached on 571-272-7527. The fax number for the organization where the application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Retrieval (PAIR) system. Status information for published applications may be obtained from either private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair->

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Jean Duclos Saintcyr

/Brian T. Pendleton/

Supervisory Patent Examiner, Art Unit 2623